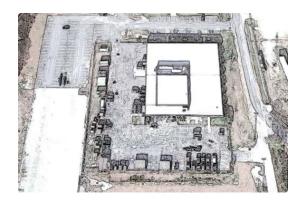
## MWCS-28 GROUND CALIBRATION FACILITY



# GCSS-MC SERVICE REQUEST/CAL CONTROL TUTORIALS



UPDATED 15-JUL-2015

Download the latest version from www.okical.com "MWCS-28 Cal" page.

Created by: GySgt Tieman, R. D.

## MWCS-28 GROUND CALIBRATION FACILITY GUIDES



\*\*\*DISCLAIMER: The proceeding how-to guides are based upon current orders and directives, UM 4000-125 dated 20150427, and local IMA SOP. Final authority rests within current unit Maintenance Management policies.

## I. READ THE REFERENCES

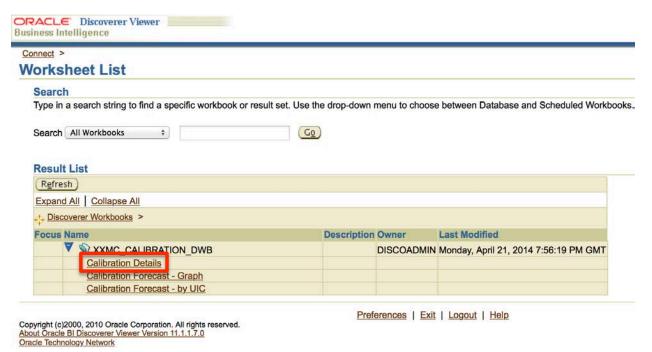
\*CAL GUIDANCE: DOWNLOAD MCO FROM WWW.MARINES.MIL PUBLICATIONS. DOWNLOAD TM/TI/UM FROM WWW.MARINES.MIL TECHNICAL PUBLICATIONS. UM 4000-125 CAN BE DOWNLOADED FROM FSMAO EAST/WEST SHAREPOINT.

- 1. TM 10510-OD/10 (PCN: 18400014000) GPETE LISTING
- 2. MCO 4400.16H (PCN: 10204730000) UMMIPS
- 3. MCO P4400.82F W/CH 1-2 (PCN: 10205020000) MUMMS
- 4. MCO 4733.1C (PCN: 10206528000) TMDE CAMP
- 5. MCO 4855.10C (PCN: 10206610700) PQDR PROGRAM
- 6. UM 4790-5 W/CH 1 (PCN: 18847905000) MIMMS AIS
- 7. TM 4700-15/1H W/CH 2 CUM 3 (PCN: 18204600000) GROUND EQUIP RECORDS
- 8. TI 4733-0D/1 (PCN: 16738355000) TMDE CAMP
- 9. TI 4733-OD/2 (PCN: 16747331600) CRSIG
- 9. TI 4733-OD/10 (PCN: 16738356000) SPECIAL CAL OF TORQUE TOOLS
- 10. TI 4733-OD/11 (PCN: 16737357200) INFANTRY WEAPONS GAGE PROGRAM
- 11. TI 4733-OD/21 (PCN: 16747104300) SICP
- 12. UM 4000-125 (PCN: 18844123300) GCSS-MC USER MANUAL

## II. RUN THE CALIBRATION REPORT

\*CAL GUIDANCE: IAW UM 4000-125 DATED 20150427 PAGE 562, GCSS-MC WILL BE USED TO SCHEDULE, TRACK AND SUBMIT ITEMS FOR CALIBRATIONS. FOR ANY ITEM THAT IS NOT IB TRACKED, THE CALIBRATED ITEM WILL BE MANUALLY TRACKED ON AN EXCEL SPREADSHEET.

- 1. In order to schedule calibration requirements, the GCSS-MC calibration report must be utilized in order to keep track of what is due for calibration.
- 2. Log into GCSS-MC and select the 'Discover Reports User' role.
- 3. Select the 'Calibration Report' link under the Discoverer Custom Reports for Maintenance category.

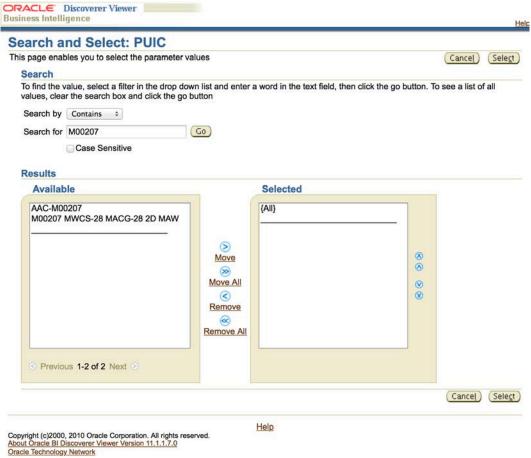


Select Report

4. Select the 'Calibration Details' link.

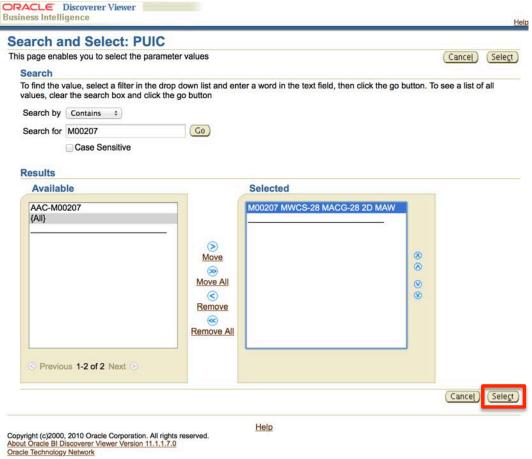


4. Click the flashlight icon next to the 'Select Values(s) for UIC'.



Select UIC

- 5. For quicker searches, type the wildcard symbol and RUC into the 'Search for' field and click 'Go' to filter for the desired units under the RUC. Click on '{All}' and then the '< Remove' button. Select the desired AAC's and then the '> Move' button.
- 6. Once the proper RUC is displayed, double-click (or utilize the move buttons) the 'Available' and 'Selected' fields such that the following screen is achieved.



Select UIC

7. Confirm that only the desired RUC is displayed within the 'Selected' field as given by the above figure. Leaving the '<All>' criteria in the selected field will pull all units data and take a long time to process. Click the 'Select' button when finished.

connect > Workbooks >	ON DWD O III	Car Batalla				
XMC_CALIBRATION	A STATE OF THE STA	ation Details				
ast run Friday, April 17, 2015 5	:53:18 PM GMT					
Worksheets	Parameters Needed					
Calibration Details	Select values for the follow	wing parameters				
Calibration Forecast - Graph Calibration Forecast - by UIC	* Indicates required field	wing parameters.				
, , , , , , , , , , , , , , , , , , ,	* Select value(s) for UIC	'M00207 MWCS-28 MACG-28 2D M				
	<ul> <li>* Select value(s) for Responsible Officer</li> </ul>	'{All}'	8			
	* Select value(s) for SUC	'YCE00'	8			
	Colontualus/-\f	Subordiante Unit code	500			
	* Select value(s) for TAMCN	'{All}'	3			
	* Select value(s) for ID	'{All}'	3			
	ID.	TAMCN ID				
	* Select value(s) for Model	'{All}'	3			
	Woder	TAMCN Model				
	* Select value(s) for Serial Number	'{Ali}'	3			
	* Select value(s) for NIIN	'{All}'	3			
	Nilly	National Item Identification Number				
	Enter starting Date					
	Range (DD-MON- YY)	'01-JAN-2010'				
	1.17	Next Calibration Date (Example: 17-APR-201	5)			
	Enter ending Date					
	Range (DD-MON- YY)	'01-JAN-2011'				
	1.0	Next Calibration Date (Example: 17-APR-201	5)			

Copyright (c)2000, 2010 Oracle Corporation. All rights reserved. About Oracle BI Discoverer Viewer Version 11.1.1.7.0 Oracle Technology Network Preferences | Exit | Logout | Help

SUC Search

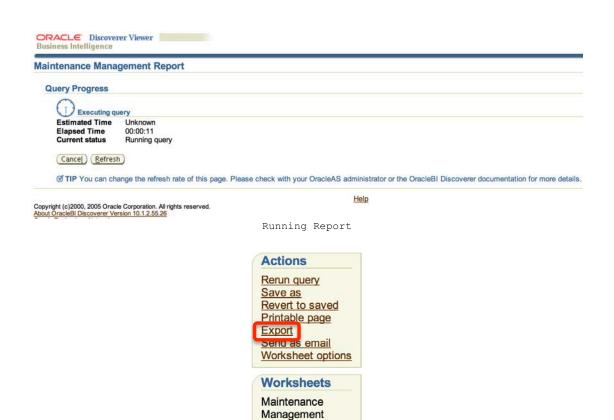
8. Enter your Subordinate Unit Code (SUC). The SUC code is your unit CMR designator within your UIC. If unknown, contact your Consolidated Memorandum Receipt (CMR) Responsible Officer (RO) or unit MMO/MMC/Supply Officer for this information. Note that leaving this field set to '{All}' will pull all SUC values and you can merely sort the resulting spreadsheet for your particular SUC.

XMC_CALIBRATIO	THE RESERVE OF THE PARTY OF THE	ation Details						
ast run Friday, April 17, 2015 5:	53:18 PM GMT							
Worksheets	Parameters Needed							
Calibration Details Calibration Forecast - Graph Calibration Forecast - by UIC	Select values for the following parameters.  * Indicates required field							
,	* Select value(s) for UIC	'M00207 MWCS-28 MACG-28 2D M						
	* Select value(s) for Responsible Officer	'{Ali}'	3					
	* Select value(s) for SUC	'YCE00'	3					
	000	Subordiante Unit code						
	* Select value(s) for TAMCN	'{All}'	8					
	* Select value(s) for ID	'{All}'	8					
	* Select value(s) for	TAMCN ID	-0					
	Model	'{All}'	3					
	* Select value(s) for	TAMCN Model						
	Serial Number	'{All}'	3					
	* Select value(s) for NIIN	'{All}'	3					
	1,000,000	National Item Identification Number						
	Enter starting Date Range (DD-MON- YY)	'01-JAN-2010'	1					
	11)	Next Calibration Date (Example: 17-APR-201	5)					
	Enter ending Date Range (DD-MON-	'30-APR-2015'						
	YY)	Next Calibration Date (Example: 17-APR-201	5)					

Copyright (c)2000, 2010 Oracle Corporation. All rights reserved. About Oracle BI Discoverer Viewer Version 11.1.1.7.0 Oracle Technology Network

Date Search Criteria

9. Entering dates within the 'Enter starting Date' and 'Enter ending Date' fields will query the report with respect to the 'Next Calibration Action Date' field in the PM/CAL Schedule form only. Leaving the 'Enter starting Date' and 'Enter ending Date' fields blank will search for all records that have any information contained within the 'CAL' marked fields in the PM/CAL Schedule form to include any items with PM information entered in the 'PM or Calibration Remarks\*' field. This query is only useful for searching for calibration items with a blank 'Next Calibration Action Date' field.



Actions

Parts Requested Charges Task Detail by Assignee Task Summary by Assignee

10. Once the report has finished, click on the 'Export' link to export the report.

Report Tasks



11. Choose the drop-down list.



Report Format

- 12 Select the desired format of the exported report.
- 13. Click the 'Export' button in the upper right-hand corner of the screen.
- 14. Click the 'Click to view or save' button and save the report to your computer.

5	B B	C	D	E	F	G	H	1	3	K	1	M	N	0	P	Q	R	5	T	U
	Global Combat Support	System - Marine	Corps Care	ration Details 17-FEI	B-2013															
	UIC -KAIP TAMON -	All> Senal # < All	NIIN WATE					-	_				-		+					4:
	OIC. SAILS INVICES.	Ann online W. Ann	s latter states																	
	UIC SUC	TAMON	NIIN	Nomenclature Instr	ance #	Serial #	Last SR #	Last Cal Tv	pe Last Cal Date	Next Cal Dat	te Next Cal Tyr	e Remarks								
	M29021 3D M YELM	Transact.	002488975	GAGE.COMP 130		0052001		SPECIAL		10-APR-201			V GENRI MET	BI TO FRAN	CER AND INT	ERVAL (+/-2%F	8)			
7	YELM		002486975	GAGE,COMP 108		*0056001		SPECIAL		11-APR-201						ERVAL (+/-2%F				
8	YELM		002486975	GAGE.COMP*1131		0074001		SPECIAL		11-APR-201						ERVAL (+/-2%F				
9	YELM		002486975	GAGE COMPT131		*D082001		SPECIAL		10-APR-201						ERVAL (+/-2%F				
0	YELM	A705570.00	9015134644	TEST SET RATE		0218		INACTIVE		2 20-SEP-201			INACTIVE D			and the same	76	_	_	
ī	YELM		9015134644	TEST SET RATE		10248		INACTIVE		2 20-SEP-201			2 INACTIVE D							
ž	YELM		0013776166	OHMMETER 782		1029246		FULL		28-NOV-201		10 1101 201				10				
3	YELM		0 013776166	OHMMETER 774		D33000		FULL		2 19-NOV-201					-	-				
4	YELM		9 015134644	TEST SET RATES		D354		SPECIAL		27-APR-201		SEE ITEM IN	STANCE NOT	EG		-			_	
5	YELM		9015134644	TEST SET RAS25		0371		SPECIAL		27-APR-201			STANCE NOT							
6	YELM		97012175631	TEST SET 775		5379	-	INACTIVE		2 20-SEP-201			2 INACTIVE D		+					+
7	YELM		9 012175631	TEST SET 7750		0382		INACTIVE		20-SEP-201			INACTIVE D		_					
g	YELM		9 012175631	TEST SET 775		10396		INACTIVE		2 20-SEP-201			2 INACTIVE D							
9	YELM		9012175631	TEST SET 775		D444		INACTIVE		20-SEP-201			INACTIVE D			+				_
0	YELM		9 012175631	TEST SET 774		<b>D</b> 456		INACTIVE		2 20-SEP-201			2 INACTIVE D							
ĭ	YELM		9 015134644	TEST SET RATES		D484		SPECIAL		2 30-MAY-201			STANCE NOT							
ž	YELM		9 012175631	TEST SET 774		0495	_	SPECIAL		09-APR-201					6 8 60 OURS	OAD S/N 10688	SER CALIFORT	O STEAM OF	THE 4410 9 04	N 0443040 44
3	YELM	Ar Quar G.Ue	009430941	SCREWDRIV 581		05093944		SPECIAL		10-JUN-201		CLOCKWISE		CEL SHA DAR	o, a oo ornar L	CAD SHY 1000	DO CHE D I	2 00 HALLS II	1111, 4410-3-30	14 0113010, 44
4	YELM	A706570 00	9 012175631	TEST SET 7749		<b>D</b> 512		INACTIVE		20-SEP-201			INACTIVE D	TE						
5	YELM		9015134644	TEST SET RAS25		0538		SPECIAL		30-MAY-201			STANCE NOT			+				
6	YELM	A700070.09	010752597	WRENCH,TO 525		0610500061		SPECIAL		22-OCT-201		CLOCKWISE		ED						
7	YELM	A 705 6 7 0 00	9 012175631	TEST SET 774		*0658		SPECIAL		22-JUN-201				CO CNI ME		OAD S/N 1279	CAL 10 TO 60	MATTE MATEL	4440 2 0 0 1 00	CO. 4440 E.C.
8	YELM		3013092825	TEST SET RATISE		D737		SPECIAL		11-OCT-201			ISTANCE NOT		o, a ou unine L	OWD SUA 1518	CALDION	WALLS WITH,	4410-3-3/14 00	001, 4410-0 8
9	YELM		6 015659249	THIRD ECHE 315		D74		SPECIAL SPECIAL		17-SEP-201			L FOR CERTI		er ere					
U	YELM		3 013092825	TEST SET RATISE		0743		SPECIAL		12-SEP-201						HUNT, 10 dB AN		TAX IATODO O	AL IBRATES E	OR HET HETH
1	YELM		9 012175631	TEST SET 774		0743		INACTIVE		20-SEP-201			NACTIVE D		CUPPRENT SE	10N1, 10 0B AP	ED 20 0B A1 1	ENUATORS. C	ALIBRATED FI	UR USE WITH
2	YELM		9012175631	TEST SET 774		*D950		INACTIVE		20-SEP-201			INACTIVE D							
3	YELM		9/012175631	TEST SET 7750		10986		SPECIAL		20-SEP-201						OAD S/N 993 C		ALCOHOL SERVICE		
4	YELM		3 013092825			7012		SPECIAL												
5	YELM		2 015306573	ANALYZER S 137		702281	-			18-JUL-2013 28-OCT-201		18431//GRN	A not casionated	with current	snunt, 1008 ar	d 20 dB atenua	sors. Calibrati	ed for use with	154317/GRM (	Senai No. 1012
						702389	3002060 3108430	FULL												
ь	YELM		2 015306573	ANALYZER S*137* TEST SET *1750		7024	4108430	FULL SPECIAL		01-MAR-201				WW W. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		AD MODEL #U				
17	YELM		9 012175631	TEST SET 7750		7024		INACTIVE	21-JUN-2012	21-JUN-201 2 20-SEP-201			024, RF SAMP 2 INACTIVE D		a SU CHM LC	WIT WODEL BU	NI-OUZ-F SIN	OFF CALD I	U BU WATTS W	MIN; 4410-3 S
9				MULTIMETEF 202	ONE AND		715194	SPECIAL												
9	YELM		8 013363372			70280048				1 28-FEB-2014			CE NOT TEST							
1	YELM		6 013363372	MULTIMETEP 202		70280081	715236	SPECIAL		1 28-FEB-2014			CE NOT TEST			10		-1		
2	YELM		8 013363372			70280214		SPECIAL		29-AUG-201			CE NOT TEST							
3	YELM		8 013363372	MULTIMETEF 202		70280215 70280216	715192	SPECIAL		1 28-FEB-2014			CE NOT TEST							
4	YELM		8 013363372	MULTIMETEF 202			P15240	SPECIAL		1 28-FEB-2014			CE NOT TEST							
	YELM		6 013363372	MULTIMETER 202		70280217 70280218	715256	SPECIAL		1 28-FEB-201			CE NOT TEST							
5	YELM		8 013363372					SPECIAL		0 29-AUG-201			CE NOT TEST							
6	YELM		8 013363372	MULTIMETEF 202		70280228	715184	SPECIAL		1 28-FEB-2014			CE NOT TEST							
7	YELM		8 013363372	MULTIMETEP 259		10280262	715266	SPECIAL		1 28-FEB-2014			CE NOT TEST							
8	YELM		3 013092825	TEST SET,RATISE		7032		CNR		2 20-SEP-201:		14-DEC-2012	Z CNR DATE,	SEE ITEM INS	STANCE NOTE	22				
9	YELM		0 014943112	OHMMETER 7180		103270BCD	V*4107524	FULL		02-DEC-201										
0	YELM		9 012175631	TEST SET 7750		7034		SPECIAL		2 09-APR-201					0, & 50 OHM L	OAD MODEL #	8164 S/N 103	94 GAL'D TO 80	WATTS WITH	; 4410-3 S/N 10
1	YELM		5/015634671	TEST SET,RA'8803		7038	To Carrie	SPECIAL		2 28-NOV-201			ISTANCE NOT			Marie Contract		All Control		Lanca Land
2	YELM		3 013092825	TEST SET,RATISE		7039	7389336	SPECIAL.		12-JAN-201					H CURRENT S	SHUNT, 10 dB A	ND 20 dB AT	TENUATORS.	CALIBRATED I	FOR USE WITH
3	YELM		2*015253080	REFLECTOM 1809		70531		INACTIVE		20-SEP-201			2 INACTIVE DI							
4	YELM	H70302B.09	8 013363372	MULTIMETEP 1111	19619	70821147		SPECIAL	20-SEP-2011	19-SEP-201-	4 SPECIAL	CAPACITANI	CE NOT TEST	ED						

Calibration Report

- 15. The Calibration Report may now be sorted and analyzed for calibration scheduling. Note that choosing to not run macros upon opening of the report will keep the traditional spreadsheet view as indicated above. Running the embedded macros will reformat the spreadsheet upon opening to a more printer friendly view, but hinders traditional sorting of data within the spreadsheet. Some things to consider are;
  - a. All TMDE due for calibration. Schedule for calibration as required.
- b. All TMDE missing a SUC value (No SUC). For child items, the item instance number of the No SUC TMDE can be queried within the Installed Base and the 'Show Parent' option selected to view what SUC the parent belongs to. For parent items, the instance number of the No SUC TMDE can be queried within the Installed Base and the associated service requests viewed to see what GCSS-MC group owns the item and thereby what SUC they fall under. IAW UM

4000-125 dated 20150427 Page 108; "Child assets do not require a SUC assignment however; assigning a SUC to calibrated items facilitates ease of tracking for the maintenance management and maintenance sections." Recommended SUC assignment for children requiring calibration is the CMR SUC with a "C" placed on the end indicating a child. For example, CMR SUC is "YCE00", child SUC is "YCE00C".

- c. Missing Special Calibration remarks. Requirement per TM 4700-15/1H. The Last SR# on the calibration report can be viewed to see what calibration information was reported under the calibration task. Special Calibration tags with this information are also applied to TMDE or their associated equipment case.
- d. Missing CNR/INACTIVE date in remarks. Requirement per TM 4700-15/1H. The date that the TMDE was originally placed in a CNR/INACTIVE status must be put into this field, i.e. (CNR 4/7/2010). The Last SR# on the calibration report can be viewed to see what calibration information was reported under the calibration task. The date is also recorded on the TMDE calibration sticker.
  - e. CNR/INACTIVE dates not updated. Requirement per TM 4700-15/1H.
- 1) Last Cal Date. When initially placed in a CNR/INACTIVE status, the date on the calibration sticker should be in this field (matches date in remarks). When the next annual TMDE validation occurs, the date of this TMDE evaluation is entered in this field. See your CMR RO for this date.
- 2) Next Cal Date. This will be the date of the next scheduled annual TMDE validation for all CNR/INACTIVE items. See your CMR RO for this date. IAW MCO 4790.2C W/CH 1-2 Page D-6, "All equipment which has been in an "INACTIVE" status for greater than 3 years must be reviewed to ascertain if the equipment is still required for use/contingency operations. When the item is still required, submit the item to the calibration laboratory for intermediate PM, functional check, and application of a new "INACTIVE" label." Therefore, if the 3-year anniversary of the CNR/INACTIVE date is sooner than the date of the next scheduled annual TMDE validation, then this 3-year anniversary date is entered in this field.

#### III. CREATE ORGANIZATIONAL SR

\*NOTE: IAW UM 4000-125 DATED 20150427 PAGE 512, THE EQUIPMENT OWNER/USER/CUSTODIAN WILL CREATE AN ORGANIZATION SERVICE REQUEST (SR). "THE PREPARING ACITIVTY IS RESPONSIBLE FOR INITIAL PREPARATION AND THE PROPER CLOSING OF THE SR."

\*\*NOTE: IAW UM 4000-125 DATED 20150427 PAGE 562, "OPEN A MAINTENANCE-CAL SR ON THE PARENT/END ITEM AND USE A MAINTENANCE-CAL TYPE SR TO EVACUTATE THE COMPONENT (COMPONENT EVACTUATION)." THIS MEANS THAT THE ORGANIZATIONAL SR (1ST/2ND ECHELON SR) IS OPENED ON THE PARENT/END ITEM AND RAN IN A "COMP EVAC" STATUS, WHILE THE COPIED 3RD ECHELON SR IS OPENED AGAINST THE ACTUAL ITEM TURNED IN FOR CALIBRATION, AND BOTH ARE CONNECTED THROUGH 'RELATED OBJECTS'.

#### IV. CREATE IMA SR

\*NOTE: IAW UM 4000-125 DATED 20150427 PAGE 579, IT IS THE RESPONSIBILITY OF THE PREPARING ACTIVITY TO PERFORM THE COPY REQUEST FUNCTION IN ORDER TO CREATE THE IMA SR (3RD ECHELON SR).

\*\*NOTE: SR IS SAVED IN AN 'APPROVED' STATUS BY AN INDIVIDUAL ON THE UNIT UMMIPS UND LETTER (REFERENCE MCO 4400.16H) FOR THE CURRENT SR PRIORITY.

\*\*\*NOTE: DO NOT CHANGE GROUP OWNER OF MAINTENANCE SR FROM OWNING UNIT. MWCS-28 CEM PLATOON SHIPPING AND RECEIVING SECTION (S&R) SECTION WILL CHANGE GROUP ONWER TO IMA GROUP UPON PHYSICAL ACCEPTANCE OF EQUIPMENT.

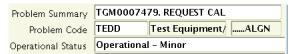
## V. CALIBRATION SECTION TMDE INDUCTION (3rd Echelon)

\*NOTE: THE CEM PLATOON SHIPPING AND RECEIVING SECTION WILL BE THE INDUCTION POINT FOR ALL TEST EQUIPMENT PHYSICALLY TRANSFERRED FOR CALIBRATION SUPPORT. THE CEM S&R PERSONNEL WILL ENSURE THAT THE OWNING UNIT HAS APPROVED THE SERVICE REQUEST ('APPROVED' STATUS), VALIDATED ALL INFORMATION AND SL-3, THEN THEY WILL CHANGE THE GROUP OWNER TO THE CALIBRATION FACILITY AND THE STATUS TO 'EQUIP ACCEPTED', AND THEN SAVE THE SR PRIOR TO PHYSICALLY TRANSFERRING EQUIPMENT TO THE CALIBRATION FACILITY.

\*\*NOTE: ONLY CALIBRATION PERSONNEL WILL PERFORM THE FOLLOWING ACTIONS WHEN PHYSICALLY RECEIPTING FOR TMDE.

- 1. Verify all information to include;
  - a. Unit POC information in upper left of SR header?
  - b. Item Identification correct?
  - c. If Item Identification is missing NIIN, Serial Number, Item Instance Number; Is proof of GCSS-MC Help Desk Support Request attached to SR?
  - d. SR Type (CAL, CM, MOD) correct? If incorrect, SR must be admin closed and recreated.
  - e. 3<sup>rd</sup> SR linked through Related Objects to 1<sup>st</sup>/2<sup>nd</sup> SR?

 Verify/Update [Workbench] tab problem description fields as indicated in the below figure. Standardized request statements are; REQUEST CAL, REQUEST SPECIAL CAL, REQUEST CM, REQUEST MOD, REQUEST CNR, REQUEST INACTIVE.



Problem Description Fields

- 3. Under the [Tasks] tab, create an Acceptance Task and Technician Labor Task IAW 'APPENDIX A TASK TEMPLATES'.
- 4. Ensure that the SR [Status] is updated from 'EQUIP ACCEPTED' to 'SHT TECH' (or other appropriate status) and then saved again.

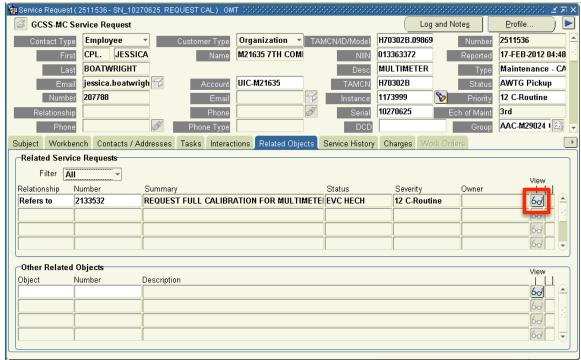
#### VI. IMA SR STATUS RECONCILIATION

\*CAL GUIDANCE: GCSS-MC ALLOWS TOTAL VISIBILITY REGARDING MAINTENANCE ACTIONS WITHIN THE IMA. FOR THIS REASON, THE OWNING UNIT IS REQUIRED TO ACCESS GCSS-MC REGARDING CURRENT STATUS INFORMATION OF ALL EQUIPMENT INDUCTED INTO THE MARINE CORPS GROUND CALIBRATION FACILITY.

#### RELATED OBJECTS

- 1. Log into GCSS-MC and select assigned role.
- 2. Open the organizational SR that is linked to the  $3^{\rm rd}$  echelon SR.
- 3. Click on the 'Related Objects' tab. The status and priority of each related SR is displayed directly on this screen.
- 4. Click on the glasses icon next to the related 3rd echelon SR in order to access this record for more information.

\*NOTE: If an item is currently undergoing mod/repair, then the calibration SR will be run in an 'ITRS REP' (Inter-Shop Repair) status until the mod/repair is complete and their associated SR's are closed. Therefore, if the SR is in an 'ITRS REP' status, then check for a corresponding 'Maintenance - CM' and/or 'Maintenance - MOD' SR linked to the 2<sup>nd</sup> SR (related objects tab) for the most current status of the equipment.



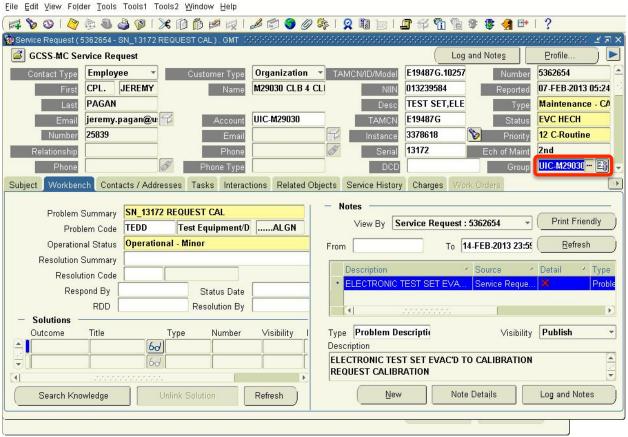
Sample 'Copy Service Request' Screen

5. Once all maintenance actions are completed, the 'Maintenance - CAL' SR will undergo Quality Control (QC) inspection and be placed in an 'AWTG Pickup' status. An owner notified task set in an 'Assigned' status will be

created and assigned to the group as listed on the organizational SR. This task will appear in the unit Universal Work Queue (UWQ) for that group. It is the responsibility of the owning unit to acknowledge this task by changing the task status to 'Accepted'. If the owner notified task is not acknowledged by the owning unit as required by UM 4000-125 DATED 20150427 PAGE 522, then this task will be admin closed by the calibration shipping and receiving personnel when the owning unit picks up their equipment.

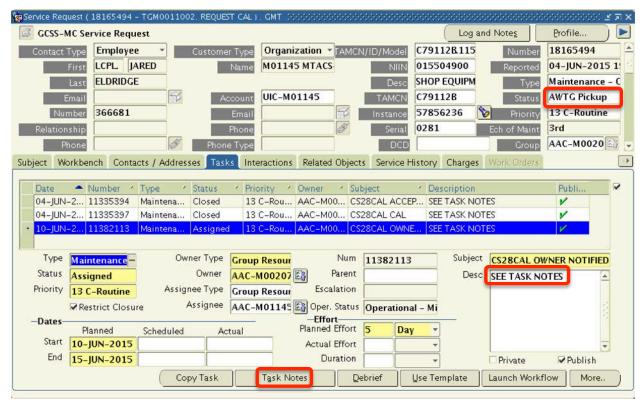
#### UNIVERSAL WORK QUEUE (UWQ)

6. The owner notified task will be visible within the Universal Work Queue (UWQ) of the unit assigned the task.



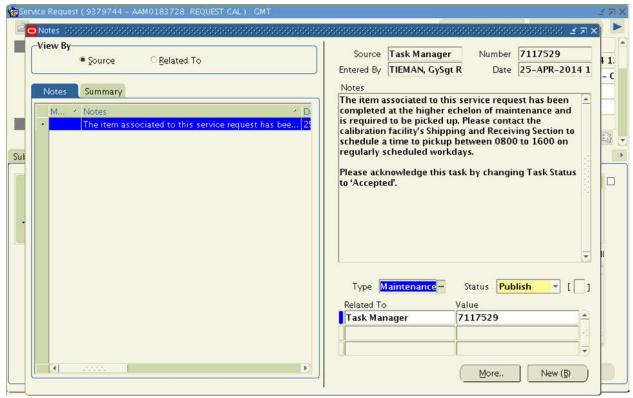
2<sup>nd</sup> Echelon SR Group Owner

7. The previous figure illustrates the organizational SR Group owner, which is the owning unit.



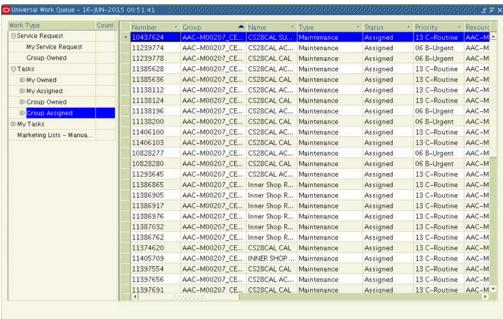
Owner Notified Task

8. The Owner Notified Task 'Owner' is the calibration facility (AAC-M00207\_CEM\_CAL, AAC-M00207\_CEM\_CALMECH or AAC-M00207\_CEM\_CALIMA) as this is their service request. The 'Assignee' is identical to the owning unit AAC/UIC as specified on the organizational SR. This will cause the Owner Notified Task to be visible within the Units "Group Assigned" UWQ. The owner notified remarks are input into the 'Task Notes'.



Owner Notified Task

- 9. Log into GCSS-MC and select assigned role.
- 10. Select the Universal Work Queue link under the Service Request category.



Universal Work Queue (UWQ)

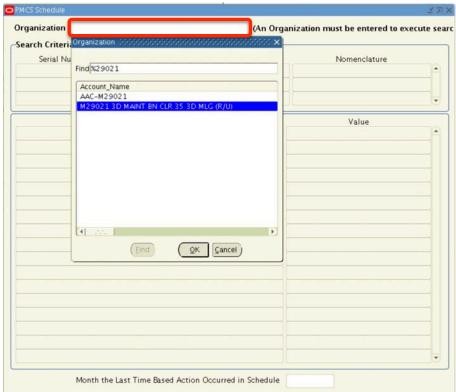
- 11. The Owner Notified Tasks will be located under the UWQ. Since the task is assigned to the unit, this Owner Notified Task will appear under the 'Group Assigned' list.
- 12. This is an informational task and requires the owner to change the task status to 'Accepted' thereby acknowledging this task. The calibration S&R personnel will close this task during unit pickup of equipment.

## VII. UPDATING THE GCSS-MC CALIBRATION DATA

Created By: Cpl Wright, B. H.

\*NOTE: ONCE THE EQUIPMENT HAS BEEN PICKED UP AT THE CALIBRATION FACILITY AND ALL ASSOCIATED SERIVES REQUESTS HAVE BEEN PROPERLY CLOSED, THE FOLLOWING ACTIONS MUST TAKE PLACE IAW UM 4000-125 DATED 20150427 PAGE 541.

- 1. Log into GCSS-MC and select the 'GCSS-MC Maintenance Chief' role.
- 2. Select the 'PM/CAL Scheduling Form' link.



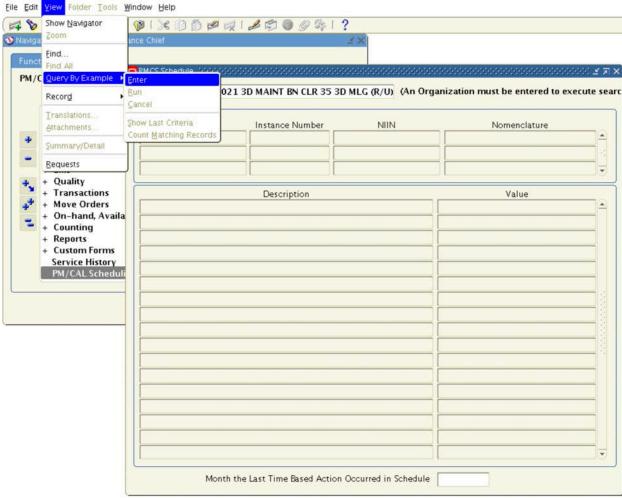
RUC Search

3. Once the screen loads, enter the RUC into the 'Organization' field or select the ellipse to scroll and search. Quick searches are accomplished by inputting the wildcard symbol '%' in front of the RUC, e.g. '%29021', in order to search for all unit names sharing the same RUC.



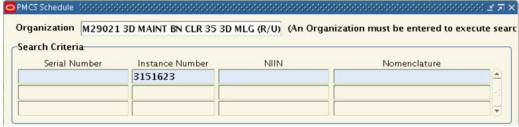
4. Next, click on any of the fields to activate the Search Criteria function.





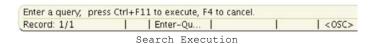
Activate Search Fields

5. As indicated in the lower left-hand corner of the window, press F11 to activate the search fields. An alternate method utilizes the top menu bar, select 'View' -> 'Query By Example' -> 'Enter' in order to activate the search fields.



Search Criteria

6. Enter the desired search criteria, where only one is required. The preferred order of search criteria is; Instance Number, Serial Number, NIIN, Nomenclature. The Instance Number is unique to each item and will return only one record. The Serial Number may be common to other items as assigned by a manufacturer and may return multiple records. The NIIN and Nomenclature will be common to many items and may return many records, which is not ideal.

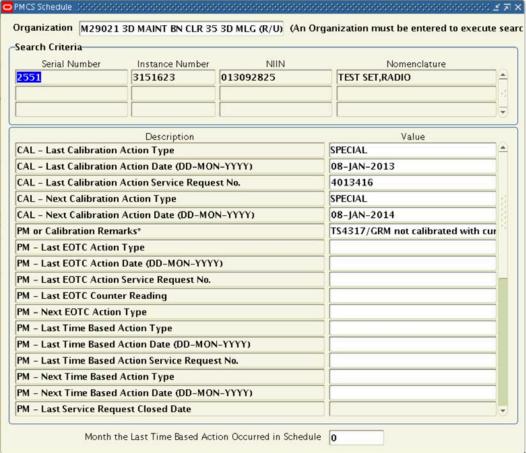


7. As indicated in the lower left-hand corner of the window, press Ctrl+F11 to execute the search. An alternate method utilizes the top menu bar, select 'View' -> 'Query By Example' -> 'Run' in order to execute the search.

Serial Number	Instance Num	ber NIIN	Nomenclature	
2479	3151622	013092825	TEST SET,RADIO	1
<b>2551</b>	3151623	013092825	TEST SET,RADIO	
1039	15866	013092825	TEST SET,RADIO	-
	Description		Value	
CAL - Last Calibration	Action Type		SPECIAL	
CAL - Last Calibration	Action Date (DD-	08-JAN-2013		
CAL - Last Calibration	Action Service Re	4013416		
CAL - Next Calibration	n Action Type	SPECIAL	1	
CAL - Next Calibration	n Action Date (DD-	08-JAN-2014		
PM or Calibration Rem	narks*	TS4317/GRM not calibrated with cu	r	
PM - Last EOTC Action	n Type			
PM - Last EOTC Action	n Date (DD-MON-	YYYY)		1
PM - Last EOTC Action	n Service Request	No.		1
PM - Last EOTC Count	ter Reading			
PM - Next EOTC Actio	n Type			
PM – Last Time Based	Action Type			
PM – Last Time Based	Action Date (DD-	MON-YYYY)		
PM – Last Time Based	Action Service Re	quest No.		
PM - Next Time Based	Action Type			
PM - Next Time Based	Action Date (DD-	MON-YYYY)		
PM – Last Service Req	uest Closed Date			1

NIIN Search

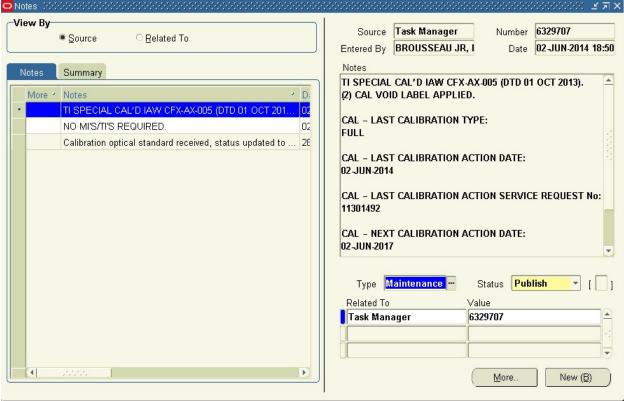
8. As indicated by the above figure, a NIIN search returns multiple items and the user must scroll through and click on the correct serial number in order to see the identifying information.



Item Instance Search

- 9. As indicated by the above figure, an Item Instance search will return only one record.
  - A. CAL Last Calibration Action Type. This is the calibration status as defined within TI 4733-OD/1 and annotated in the GCSS-MC task notes as well as the attached calibration certificate. Acceptable values are; FULL, SPECIAL, CNR, INACTIVE, REJECTED.
  - B. CAL Last Calibration Action Date (DD-MON-YYYY). This is the date that completed calibration actions were performed.
  - C. CAL Last Calibration Action Service Request No. This is the 'Maintenance - CAL' service request number that calibration actions were recorded under.
  - D. CAL Next Calibration Action Type. This is the next projected calibration status as defined within TI 4733-OD/1. If a unit determines that certain items are required to be placed within an INACTIVE or CNR status the next time that calibration actions are performed, then the unit will go into this record and update the information. This will allow the calibration NCO see this intended status when running the calibration report, and requesting this status when inducting the item into the calibration facility.
  - E. CAL Next Calibration Action Date (DD-MON-YYYY). This is the next scheduled calibration date reflected as the calibration due date as defined within TI 4733-OD/1 and annotated in the GCSS-MC log notes as well as the attached calibration certificate.

- F. PM or Calibration Action Remarks. This field contains any specific calibration remarks as annotated in the GCSS-MC task notes as well as the attached calibration certificate. All Special Calibration / CNR / INACSTIVE status items will contain special calibration remarks such as;
  - SPECIAL CAL'D IAW GENRL METRL TOLERANCES AND INTERVAL (+/-2%FS).
  - SPECIAL CAL'D AS SET WITH: 4410A S/N 0495, RF SAMPLER S/N 0495, & 50 OHM LOAD S/N 1068858 CAL"D TO 80 WATTS WITH; 4410-3 S/N 0113010, 4410-5 S/N.
  - SPECIAL CAL'D FOR CLOCKWISE USE ONLY.
  - CNR ON 5-JUN-2014.
- 7. Save the information before exiting by utilizing the top menu bar 'File'
  -> 'Save' options.



Sample Task Note

8. Note that there will also be a uniformly formatted Task Note created in the latest maintenance SR calibration task that will capture the required PM/Cal information as indicated above. This is done by the calibration facility in order to better facilitate the owning unit transfer of calibration information from the maintenance SR to the PM/CAL Scheduling Form.

#### 9. SAMPLE FULL CALIBRATION ENTRY.

TI cal'd IAW CFX-GP-003 (dtd 1 January 2013). (1) Cal Void seal applied. No MI required.

CAL - Last Calibration Action Type: FULL

CAL - Last Calibration Action Date: 04-JUN-2014

CAL - Last Calibration Action Service Request No: 12670740

 $\mathtt{CAL}$  -  $\mathtt{Next}$  Calibration Action Type:  $\mathtt{FULL}$ 

CAL - Next Calibration Action Date: 04-AUG-2016

PM or Calibration Action Remarks: N/A

#### 10. SAMPLE SPECIAL CALIBRATION ENTRY.

TI special cal'd IAW CFX-GP-003 (dtd 1 January 2013). (1) Cal Void seal applied. No MI required.

CAL - Last Calibration Action Type: SPECIAL

CAL - Last Calibration Action Date: 04-JUN-2014

 $\mathtt{CAL}$  - Last Calibration Action Service Request No: 12670740

CAL - Next Calibration Action Type: SPECIAL

CAL - Next Calibration Action Date: 04-AUG-2016

PM or Calibration Action Remarks: Calibrated for use with the N5531SOPTXXX Microwave Measurement Receiver.

\*NOTE: If the remarks are greater than the field size limit, then a remark referencing the service request containing this information should be entered, i.e. "SPECIAL CAL: SEE CAL SR# 123456 DUE TO LIMITED SIZE OF FIELD."

## 11. SAMPLE CNR/INACTIVE CALIBRATION ENTRY (TM 4700-15/1H Page 2-7-3).

TI op-checked IAW CFX-GP-003 (dtd 1 January 2013). Placed in CNR status per owning unit request. No MI required.

CAL - Last Calibration Action Type: CNR

CAL - Last Calibration Action Date: 04-JUN-2014

CAL - Last Calibration Action Service Request No: 12670740

CAL - Next Calibration Action Type:
(Determined by owning unit)

CAL - Next Calibration Action Date: (Date of next annual TMDE validation IAW MCO P4790.2C)

PM or Calibration Action Remarks: CNR on 04-JUN-2014.

\*NOTE: Whenever the next annual TMDE validation occurs, the 'Last Calibration Action Date' will be updated to reflect this annual TMDE validation date, and the 'Next Calibration Action Date' will be updated to reflect the next scheduled annual TMDE validation date. See your CMR RO for these dates.

#### 12. SAMPLE REJECTED CALIBRATION ENTRY.

TI fails calibration IAW CFX-GP-003 (dtd 1 January 2013). See SR attachment for Out-Of-Tolerance (OOT) testing information.

CAL - Last Calibration Action Type: N/A

 ${\tt CAL}$  - Last Calibration Action Date:  ${\tt N/A}$ 

CAL - Last Calibration Action Service Request No: 12670740

CAL - Next Calibration Action Type: N/A

CAL - Next Calibration Action Date: N/A

PM or Calibration Action Remarks: SAC=1, RC=Z, DRMO and requisition.

\*NOTE: Pending official guidance, local SOP must dictate what updates are required for these field with respect to rejected calibration items. Once rejected, the item no longer requires calibration scheduling, therefore these fields become redundant. Recommendation is to ensure that at a minimum reject remarks are entered in the remarks field.

## APPENDIX A - CAL 3<sup>rd</sup> SR TASK TEMPLATES

\*\*\*ALL TASKS MUST BE LABOR DEBRIEFED DOCUMENTING LABOR TIME\*\*\*

## A. TECHNICIAN LABOR TASKS

\*NOTE: Upon starting maintenance actions, technician will update Labor Debrief [Assignment Status] and Tasks [Status] to 'Working' ensuring that the task is assigned to them. Upon completion of maintenance actions and prior to running an SR in a 'FINL INS' status, technician will; debrief all material (parts), enter all task labor information and update task Labor Debrief [Assignment Status] to 'Completed', and then update all task notes and update Tasks [Status] to 'Closed'. The only task that the technician will not debrief and close is the 'CS28CAL ACCEPTANCE/FINAL INSPECTION' described below, as this task will be debriefed and closed during Final Inspection (QC).

\*\*NOTE: IAW UM 4000-125 DATED 20150427 PAGE 521, "Tasks are created and utilized to document all actions conducted throughout the maintenance cycle and will be "Maintenance" type tasks. Additionally, the requisition of repair parts, SL-3, documentation of labor hours, materials applied and reconciliation with supporting activities will hours, materials applied and reconciliation with supporting activities will be recorded via "Maintenance" type tasks."

\*\*\*NOTE: IAW UM 4000-125 DATED 20150427 PAGE 523, "Transaction Status" type tasks are utilized in conjunction with a "Validation-request" task.

#### I. ACCEPTANCE TASK

Task Type: Maintenance Task Status: Assigned

Task Priority: (Same as SR Priority)

Task Owner Type: Group Resource

Task Owner: (Same as SR Group Owner)
Task Assignee Type: Employee Resource

Task Assignee: (Individual Inducting Equipment)

Task Planned Effort: 1 Hour

Task Subject: CS28CAL ACCEPTANCE/FINAL INSPECTION

Task Description: See Task Notes.

Task Notes (Note type is 'Maintenance Details'):

Notes comprising; Acceptance notes, SL-3 accepted, visual defects, PMCS condition, required MI/TI. Sample entries include;

ACCEPTED SL-3 COMPLETE. NO VISUAL DEFECTS. NO MI REQUIRED.

ACCEPTED WITH ONLY THE FOLLOWING SL-3; (list SL-3). NO VISUAL DEFECTS. NO MI REQUIRED.

NO SL-3 ACCEPTED. NO VISUAL DEFECTS. NO MI REQUIRED.

\*NOTE: S&R will create this task. This task will also be utilized as the Final Inspection task during QC and closed by QC personnel.

## II. TRANSFER TO CALIBRATION (ELEC/MECH)

```
SR Type: Maintenance - CAL
SR Ech of Maint: 3rd
SR Status: SHT TECH
SR Priority: 13 C-Routine
SR Group: AAC-M00207 CEM CAL
SR Owner: (Section Head)
Workbench Problem Summary: TAM0001234. REQUEST CAL
Workbench Problem Code: TEDD
                               ALGN
Workbench Operational Status: Operational - Minor
Task Type: Maintenance
Task Status: Assigned
Task Priority: 13 C-Routine
Task Owner Type: Group Resource
Task Owner: AAC-M00207 CEM CAL
Task Assignee Type: Employee Resource
Task Assignee: (Section Head)
Task Oper. Status: Operational - Minor
Task Planned Effort: 1
                       Hour
Task Subject: CS28CAL CAL
Task Description: See Task Notes.
Task Notes (Note type is 'Maintenance Details'): All technician work notes
will go here.
       TRANSFER TO REPAIR (CM)
III.
SR Type: Maintenance - CM, or Maintenance - SRP
SR Ech of Maint: 3rd
SR Status: SHT TECH
SR Priority: (Authorized Owner Priority)
SR Group: AAC-M00207 CEM CAL IMA
SR Owner: (Section Head)
Workbench Problem Summary: TAM0001234. REQUEST CM
Workbench Problem Code: TEDD
                               INOP
Workbench Operational Status: Operational - Degraded (or) Deadlined
Task Type: Maintenance
Task Status: Assigned
Task Priority: (Same as SR Priority)
Task Owner Type: Group Resource
Task Owner: AAC-M00207_CEM_CAL_IMA
Task Assignee Type: Employee Resource
Task Assignee: (Section Head)
Task Oper. Status: (Same as SR Operational Status)
Task Planned Effort: 1
                        Hour
Task Subject: CS28CAL CM
Task Description: See Task Notes.
Task Notes (Note type is 'Maintenance Details'): All technician work notes
will go here.
```

## IV. TRANSFER TO REPAIR (MOD)

SR Type: Maintenance - MOD SR Ech of Maint: 3rd SR Status: SHT TECH SR Priority: (Authorized Owner Priority) SR Group: AAC-M00207 CEM CAL IMA SR Owner: (Section Head) Workbench Problem Summary: TAM0001234. REQUEST MOD Workbench Problem Code: TEDD INOP Workbench Operational Status: Operational - Degraded (or) Deadlined Task Type: Maintenance Task Status: Assigned Task Priority: (Same as SR Priority) Task Owner Type: Group Resource Task Owner: AAC-M00207 CEM CAL IMA Task Assignee Type: Employee Resource Task Assignee: (Section Head) Task Oper. Status: (Same as SR Operational Status) Task Planned Effort: 1 Hour Task Subject: CS28CAL MOD Task Description: See Task Notes. Task Notes (Note type is 'Maintenance Details'): All technician work notes will go here. TRANSFER TO EVAC HECH ٧. SR Type: Maintenance - CAL, Maintenance - CM, or Maintenance - MOD SR Ech of Maint: 3rd SR Status: AWTG Evacuation SR Priority: 13 C-Routine SR Group: AAC-M00207 CEM CAL SR Owner: (Section Head) Workbench Problem Summary: TAM0001234. REQUEST CAL Workbench Problem Code: TEDD ALGN Workbench Operational Status: Operational - Minor Task Type: Maintenance Task Status: Assigned Task Priority: (Same as SR Priority) Task Owner Type: Group Resource Task Owner: AAC-M00207 CEM CAL Task Assignee Type: Employee Resource Task Assignee: (Section Head) Task Oper. Status: (Same as SR Operational Status) Task Planned Effort: 1 Hour Task Subject: CS28CAL EVAC Task Description: See Task Notes. Task Notes (Note type is 'Maintenance Details'): All technician work notes will go here.

## B. QC TASKS

#### I. EDIT TASK (QC)

\*NOTE: Locate the acceptance task "CS28CAL ACCEPTANCE/FINAL INSPECTION" and edit with the following information.

Task Assignee: (Individual Conducting QC)

Task Notes (Note type is 'Maintenance Details'): All technician work notes will go here. Minimum required information will be;

REPAIRS INSPECTED, MODS VERIFIED, QC COMPLETE. CONDITION CODE A.

REPAIRS INSPECTED, MODS VERIFIED, QC COMPLETE. CONDITION CODE A. ITEM OWNED BY SAME SUC, NO OWNER NOTIFIED TASK REQUIRED.

REPAIRS INSPECTED, MODS VERIFIED, QC COMPLETE. CONDITION CODE A. CM ACTIONS COMPLETE, CALIBRATION REQUIRED UNDER CAL SR# 14685466, NO OWNER NOTIFIED TASK REQUIRED.

\*NOTE: QC will Labor Debrief and close this task using the combined minimum acceptance & QC time of 1 hour.

#### II. CREATE TASK (OWNER NOTIFIED)

\*NOTE: IAW 4000-125 DATED 20150427 PAGE 522, "When the unit performing the maintenance action is also the owner (i.e. the same SUC), creating this type of task is optional." Only equipment within CEM platoon will be granted this exemption. All others will have an owner notified task created.

Task Type: Maintenance Task Status: Assigned

Task Priority: (Same as SR Priority)
Task Owner Type: Group Resource

Task Owner: (Same as SR Group Owner)

Task Assignee Type: Group Resource Task Assignee: (Owning Unit AAC/UIC)

Task Oper. Status: (Same as SR Operational Status)

Task Planned Effort: 5 Day

Task Subject: CS28CAL OWNER NOTIFIED

Task Description: See Task Notes.

Task Notes (Note type is 'Maintenance Details'):

The item associated to this service request has been completed at the higher echelon of maintenance and is required to be picked up. Please contact the calibration facility's Shipping and Receiving Section to schedule a time to pickup between 0800 to 1600 on regularly scheduled workdays.

Please acknowledge this task by changing Task Status to 'Accepted'.

\*NOTE: QC will create this task. Customer will change Tasks [Status] to 'Accepted' acknowledging notification. S&R will Labor Debrief and close this task when customer picks up TMDE.

## C. PARTS REQUIREMENT

\*NOTE: IAW UM 4000-125 DATED 20150427 PAGE 522, "Each defect will have a separate task...Parts requirements for each defect will be requisitioned on the associated "Maintenance" type task. There will not be separate maintenance tasks for requisitioning parts requirements."

\*\*NOTE: IAW UM 4000-125 DATED 20150427 PAGE 622, "Initial requisition. Create parts requirements on the maintenance task requiring the demands. Do not create a separate parts requirement independent of the maintenance task."

## I. <u>EDIT TAS</u>K (SUPPLY - PARTS REQUIREMENT)

Under the technician labor task, the technician will enter all part requisition information IAW UM 4000-125 DATED 20150427 PAGE 623, and then assign the task to a supervisor with part requisition authority. The supervisor with part requisition authority will enter the following task note.

```
Task Notes (Note type is 'Parts Approval'):
   NIIN:
   NOMEN:
   QTY:
   SAC:
```

This priority (insert priority) critical repair part supply requisition has been approved by (UND Letter Authorized Rank Last Name) to be requisitioned as a result of intermediate maintenance activity corrective maintenance actions.

\*NOTE: This note will only be entered by an individual authorized by the current unit UMMIPS UND Letter.

\*\*NOTE: Once the part approval task note is entered, the supervisor approving the parts requisition will follow the desktop procedures for forwarding the task to the unit supply officer for action. Update the SR status to "SHT PART".

## II. EDIT TASK (RIP - SECREP EXCHANGE)

Under the technician labor task, the supervisor with part requisition authority will enter all SECREP exchange information IAW UM 4000-125 DATED 20150427 PAGE 636 in conjunction with the desktop procedures.

```
Task Notes (Note type is 'Parts Approval'):
   NIIN:
   NOMEN:
   SER NO:
   QTY:
   SAC:
```

This priority (insert priority) critical repair part SECREP has been approved by (UND Letter Authorized Rank Last Name) to be turned into the RIP as a result of intermediate maintenance activity corrective maintenance actions.

\*NOTE: This note will only be entered by an individual authorized by the unit UMMIPS UND Letter.

\*\*NOTE: Once the SECREP exchange approval task note is entered, the supervisor approving the SECREP exchange will follow the desktop procedures for forwarding the task to the MWCS-28 CEM S&R group for action. Update the SR status to "SHT PART".

#### III. EDIT TASK (OPEN PURCHASE REQUEST)

Under the technician labor task, the technician will enter all open part requisition information, and then assign the task to a supervisor with part requisition authority. The supervisor with part requisition authority will enter the following task note.

```
Task Notes (Note type is 'Maintenance Details'):

OPEN PURCHASE REQUEST. (Nomen: / PN: / CAGE: / MFGR: / QTY: / PRICE:,

and any additional amplifying information to include quote details and
source of supply NAME/ADDRESS/PHONE/EMAIL.)
```

\*\*NOTE: Once the OPR has been approved by supply, update SR status to "SHT PART" and add OPR approval information within the task note.

## D. EXTERNAL ACTION TASKS

\*NOTE: Technician will create these tasks. SOS should change [Task Status] to 'Accepted'/'Working'/'Completed' acknowledging actions, or the technician will update after reconciliation. Upon completion of required action, technician will Labor Debrief the task. Technician will then update Labor Debrief [Assignment Status] to 'Completed' and Tasks [Status] to 'Closed'.

#### I. CREATE TASK (PARTS ORDER STATUS VALIDATION)

\*NOTE: IAW UM 4000-125 DATED 20150427 PAGE 523, "Transaction Status" type tasks are utilized in conjunction with a "Validation-Request" task for reconciliation between the maintenance activity and supply.

Task Type: Transaction Status

Task Status: Assigned

Task Priority: (Same as SR Priority)

Task Owner Type: Group Resource

Task Owner: (Same as SR Group Owner)

Task Assignee Type: Group Resource

Task Assignee: AAC-M00207\_SUPPLY

Task Planned Effort: 1 Day

Task Subject: CS28CAL VALIDATION-REQUEST

Task Description: See Task Notes. (Input part NIIN in parenthesis)

Task Notes (Note type is 'Maintenance Details'): (Validation request information). Please acknowledge this task by changing Task Status to 'Accepted'.

### II. CREATE TASK (WIR NOTIFICATION)

Task Type: Maintenance
Task Status: Assigned
Task Priority: (Same as SR Priority)
Task Owner Type: Group Resource
Task Owner: (Same as SR Group Owner)
Task Assignee Type: Group Resource
Task Assignee: (Owning Unit AAC/UIC)
Task Planned Effort: 1 Hour
Task Subject: CS28CAL WIR NOTIFICATION
Task Description: See Task Notes.
Task Notes (Note type is 'Maintenance Details'):

has been determined to be a Recoverable Item Reportable (WIR) candidate IAW MCO P4400.82. The justification for this determination is

\_\_\_\_\_\_\_\_. The calibration facility will automatically submit the WIR on behalf of the owning unit as per the applicable SMR code requirement. Once the WIR is approved and disposition instructions are received, the owning unit will receive the Condition Code F carcass and all applicable maintenance records upon completion of maintenance actions. It is the owning unit responsibility to conduct disposition actions and to reconcile MAL/CMR deficiencies with their local unit supply.

This is to inform you that your equipment has failed calibration and

Please acknowledge this task by changing Task Status to 'Accepted'.

## POINTS OF CONTACT



## MWCS-28 CEM CALIBRATION SECTION:

DSN: 582-4423

COMM: 252-466-4423

## MWCS-28 CEM S&R SECTION (INDUCTION POINT):

DSN: 582-4916

COMM: 252-466-4916

## MWCS-28 CEM MAINTENANCE CHIEF:

DSN: 582-5296

COMM: 252-466-5296